

**Project Name:** Idaho Forest Economic Analysis and Investment Prioritization Program

Funding Year: 2018

## Stakeholders

<u>Forest Service Region:</u> USDA Forest Service - R1 <u>Sponsoring Organization:</u> Idaho Dept. of Lands <u>State Project Contact:</u> Tyre Holfeltz | 208-666-8653 | tholfeltz@idl.idaho.gov <u>Participating Organizations:</u> <u>Grantee:</u> Idaho Dept. of Lands

## **Project Funding**

Agreement(s): 18-DG-11010000-019

## **Project Design**

#### Project Purpose

This project will support multiple land management agencies' efforts to sustainably manage forest resources for the maximum benefit to Idaho's economy, functional ecology, wildlife and recreational opportunities by creating a geospatial database with prioritization tools. Users will not only be able to determine an economic valuation of the state's resources linked to past work, theycan identify opportunities for new projects with the highest return on potential investments.



### National Themes & Outcomes

### **Conserving and Managing Working Forest Landscapes**

- High priority forest ecosystems and landscapes are identified and conserved.
- Forests are actively and sustainably managed.

#### **Protect Forests from Threats**

- Fire-adapted lands are restored and risk of wildfire impacts is reduced.
- Threats to forest and ecosystem health are identified, managed and reduced.

### **Enhance Public Benefits from Private Forests**

- Water quality and quantity is protected and enhanced.
- Air quality is improved and energy is conserved.
- Communities plan for and reduce their risks from wildfire.
- The economic benefits and values of trees and forests are maintained and enhanced.
- Wildlife and fish habitat is protected, conserved, and enhanced.
- People are connected to trees and forests and are engaged in environmental stewardship activities.
- Trees and forests are managed and restored to help mitigate and adapt to changing conditions.



### Strategic Issues

Since 2008, Idaho has implemented about 115 State & Private Forestry (S&PF) funded projects, all tied to national themes. While we can assess acres treated and plans developed, we lack information on the projects' overall economic benefit. Lacking this piece, how can we learn from past projects, rank potential projects, and plan for the future? This project will conduct a statewide economic analysis (all Priority Landscape Areas [PLAs]) linked to a geospatial analysis of S&PF projects, producing datasets that show the impacts of S&PF projects on Idaho's forest resources, water and air quality, wildlife, and communities. Goal: Create a defensible strategy to justify/set priorities for programs, policies, and actions that protect/restore ecosystems and the provided services of improving forest health and mitigating fire threats. Objectives: Derive the true economic value of Idaho's resources through an Ecosystem Services Valuation (ESV), which shows the beneficial outcomes (in dollars) for people from the natural environment or that result from ecosystem functions. Create Idaho specific geospatial database of S&PF projects (past and present) that supports forest resource analysis. Engage stakeholders (online and in person), grant project participants, and other informed groups to develop consistent definitions, criteria, and performance measures for evaluating past and future S&PF investments (e.g. data dictionary). Create a prioritization tool that addresses Idaho's 7 key issues using project outputs and external datasets, providing significant new details to the upcoming Forest Action Plan (FAP) revision, and supports federal, state, and local agencies' efforts to efficiently use limited funds to manage and restore Idaho's natural resources. The methodology will be transferable to other States. The data generated from this project dovetails with the National Association of State Foresters (NASF) performance measures currently in development by filling a known data gap.



### **Collaboration & Partners**

The Idaho Lands Resource Coordinating Council (ILRCC) is the joint advisory group for all Idaho S&PF programs. Its members represent forestry, wildlife, environmental quality, urban forestry, etc., and all key federal/ state/ local agencies and organizations. ILRCC advises the State Forester on forest resource issues, and oversees S&PF project investments. It proposed this project to determine the economic and ecosystem benefits provided by S&PF projects. ILRCC will provide overall project oversight and will participate in all facets of the project and has the commitment of the member organizations. IDL will create the grants geodatabase and develop the web-based data entry tool for grant recipients, assist with economic and geospatial analyses, and participate in the stakeholder engagement to ensure Forest Action Plan (FAP) revision needs are supported. Local stakeholders (grantees and other pertinent forest resource specialists) will participate in 13 on-site discussions (1 per PLA) of past grant projects, provide input on local strategies, geospatial analysis and the FAP update discussion (were the right priorities implemented in the right place and addressed by best strategies?). Subject matter experts from a variety of agencies/organizations/universities (forest health, wildlife, water quality, etc.) will provide input on economic analysis and best available data and geospatial and prioritization analyses. The Idaho Forest Products Commission (IFPC), whose mission is to promote Idaho's economic and environmental welfare through collection and dissemination of information on the management of the state's public and private forest lands and the forest products industry, has committed to participate in the economic analysis. The Ecosystem Science Foundation (ESF), a member of the ILRCC, will lead and coordinate all project facets with partners, ensuring accuracy, standards, and consistency. Collaboration among all partners will amplify the investment of the ~115 previously funded projects and all future investments in Idaho by adding another layer of data not previously available with the ESV.

#### Integrated Delivery

This projects scale is meaningful at many levels and can be viewed in a hierarchical manner; state, regional, local or at any other boundary in state. The local scale explores individual S&PF projects (e.g. treatments). The regional scale examines resources and treatments cumulatively per Idaho's PLAs. At the State scale, data is accumulated from the local and regional scales. Pervading the entire hierarchy is the statewide ESV layer, which can be employed at all scales. The performance measures, definitions, metrics and ESV data can be used to strategically evaluate forest resources and treatments throughout the State at any scale by any organization, thus increasing the capacity of Idaho's smaller communities. The prioritization results afford theme-based project identification throughout the state at any scale. Overall, the outcome of this project enables the State to programmatically approach future investments in a prioritized manner in which Idaho's most at-risk and beneficial forests are first in-line for resources, and provides a justification for decisions.



### Influence on Positive Change

The project outputs will assist forest managers w/ strategic planning, conveying forest management needs to a greater audience. Analyzing past projects and associated S&PF investments provides a way to vet future projects. Clear and concise performance measures coupled with ESV easily conveys forest management needs enabling managers to galvanize [funding] support for future projects from constituents and decision-makers. IDL's web-based platform coupled with the S&PF geodatabase provides a repository of project specific data that allows IDL to track project progress, strategically plan for future investments, ensuring those investments are maximized. IDL will maintain this database into the future supporting the public benefit from project investments. The project methodology is transferable to other western states, ensuring that S&PF resources are maximized across the region. Education and outreach will occur through story maps and an ArcGIS online prioritization application that highlight program data and the successes of S&PF funding. Presentations will educate constituents and lawmakers, such as the Idaho Association of Counties and the Idaho Forest Restoration Partnership, which ensure project life beyond the initial grant.

## Accomplishments

#### **Deliverables**

DELIVERABLES: Data dictionary (variables and metrics): definitions and performance measures for S&PF projects (analogous to NASF project). Geospatial Database of projects (2008-present): attributed with accurate project boundaries, treatment locations, outcomes, and forest resources. Statewide ESV raster dataset: depicting the mean annual value per pixel (\$/acre/year), data can be displayable at multiple scales and summarized by any boundary (project, PLA, county, watershed, etc.). Map of past/future projects: enables stakeholders and managers to guickly identify underserved and priority project areas. Prioritization tool: based on Idaho's FAP 7 key issues (Threats and Benefits). Education/Outreach: includes story maps of S&PF projects and presentations. OUTCOMES: Qualitative assessments in all 13 PLAs with reviews of S&PF funded grant projects. Data quantifies the value of State's efforts supporting National Themes and provides a methodology for valuing and prioritizing future projects. Provides platform for strategic future project planning. Data to be shared (e.g. inside idaho.org) with local, state and federal agencies to employ in their analyses and project prioritizations. Promotes strategic project solicitation/selection. MEASURES: About 115 projects entered and analyzed in GIS database with associated data dictionary. 1 ESV of Idaho's economic benefits of forests statewide. 1 database housed on IDL's web-based platform for current/future analysis and promoting S&PF successes. ArcGIS online application to highlight prioritization work of FAP to legislature and stakeholders. 4 web-based story maps and 2 project presentations at selected conferences.



### Accomplishments to Date

2018: State awarded funding. Signed cooperative agreement between IDL & Ecosystem Sciences Foundation.

2019: Cooperative agreement was re-negotiated to more closely align project with desired outcomes.

2020: Cataloging of past and current projects; drafting of data dictionary; initial development of geo-database

2021: Development of Geo-database; draft of economic model

2022: Performed Economic Analysis and created ESV raster

2023: Created project Prioritization Evaluation Tool utilizing ESV raster. Finalized user manual and Data Standards Dictionary. Creation of story map, highlight projects and goals from Idaho FAP.

#### **Deliverables in Progress**

2021: Data Dictionary Draft complete Economic Analysis Plan

2022: Finalize economics model, process reports and model output products.

2023: project is complete

#### **Challenges**

2019: logistics of paper file management to electronic format has taken a considerable amount of time to determine how, who, and where to be done and stored.

2020: COVID impacted the cooperator interaction and create some delays in project progression.

2021: Cooperator having to interrupt paper files for creation of treatment footprint information for data development.

2022: Manual entry of large quantity of data. Availability of all partners to regularly engage.

2023: ESRI updated their software which impacted the user functionality of the created tool.



# Impact Area



Information Last Updated 11/8/2024